

ABSTRACT OF THE DISCLOSURE

In a charged-particle-beam exposure apparatus for exposing a wafer using a charged-particle beam, an electron beam emitted from an electron source serving
5 as a source of charged particles is substantially collimated by a collimator lens and irradiates an aperture array (3), which has apertures for forming a plurality of electron beams used to expose a wafer. A current detector array has current detectors for
10 measuring the intensities (currents) of electron beams at portions of the aperture array other than where the apertures are present. During the wafer exposure operation, each current detector of the current detector array measures the intensity of the electron
15 beam. The electron-beam intensity distribution is evaluated based upon the results of measurement and, when necessary, the optical power of electrostatic lenses that construct the collimator lens (2) is adjusted to uniformalize the electron-beam intensity
20 distribution.